



BRUHAT BENGALURU MAHANAGARA PALIKE

EMB

1ST and Final Bill

Measurement Sheet

Name of Work :- Flood relief work in Netaji nagar and surrounding areas in ward no 07 Byatarayanapura.

BRUHAT BENGALURU MAHANAGARA PALIKE

Name of Work: Flood relief work in Netaji nagar and surrounding areas in ward no 07 Byatarayanapura

E-MB - REGULAR & PRE MEASUREMENT BILL DETAILS

First And Final Bill Recorded On- / /

First And Final Bill Recorded On- / /											
Sl No	Description of work	No	Dimensions					Qty	Unit	Rate	Amount
			L	B 1	B 2	B Avg	D				
EMB - Measurement Continued Recorded On : / /											
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead 1.By Manual Means b.Cement Concrete Grade M-15 & M-20										
							Previous Qty	0.00			
	Vide Total Executed Qty from Premeasurement Page no. 01-02							110.00			
	BOQ QTY	110.30					Total	110.00	Cum	731.70	80487.00
							Deduct Previously paid qty	0.00			
							To be Paid Now	110.00			
EMB - Measurement Continued Recorded On : / /											
2	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead (iv) Dismantling Stone Masonry B Rubble stone masonry in cement mortar.										
							Previous Qty	0.00			
	Vide Total Executed Qty from Premeasurement Page no. 03							17.00			
	BOQ QTY	17.87					Total	17.00	Cum	481.50	8186.00
							Deduct Previously paid qty	0.00			
							To be Paid Now	17.00			
EMB - Measurement Continued Recorded On : / /											
3	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such similar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenances required to complete the work. In all kinds of soils Depth upto 1.5 m										
							Previous Qty	0.00			
	Vide Total Executed Qty from Premeasurement Page no. 04-05							382.49			
	BOQ QTY	382.59					Total	382.49	Cum	186.20	71220.00
							Deduct Previously paid qty	0.00			
							To be Paid Now	382.49			
EMB - Measurement Continued Recorded On : / /											
4	Construction of Embankment by excavating the available approved Gravel/Murum deposited at a place or borrow pits during or prior excavation with all lifts and lead, transportation to site, spreading, grading to required slope and compacting to meet the requirement complete as per specifications, including cost of labour,rolling,water,all materials,usage& all other appurtenances required to complete the work.										
							Previous Qty	0.00			
	Vide Total Executed Qty from Premeasurement Page no. 06							103.54			
	BOQ QTY	104.00					Total	103.54	Cum	402.40	41664.00
							Deduct Previously paid qty	0.00			
							To be Paid Now	103.54			
EMB - Measurement Continued Recorded On : / /											
5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates										
							Previous Qty	0.00			
	Vide Total Executed Qty from Premeasurement Page no. 07							65.11			
	BOQ QTY	65.19					Total	65.11	Cum	5559.60	361974.00
							Deduct Previously paid qty	0.00			361986.00
							To be Paid Now	65.11			

Description of work	No	Dimensions					Qty	Unit	Rate	Amount
		L	B 1	B 2	B Avg	D				
Measurement Continued Recorded On : / /										
Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates										
Vide Total Executed Qty from Premeasurement Page no. 08-09						Previous Qty	0.00			
BOQ QTY	132.35					Total	131.89	Cum	6272.70	827333.00
						Deduct Previously paid qty	0.00			
						To be Paid Now	131.89			
EMB - Measurement Continued Recorded On : / /										
7 Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22)										
Vide Total Executed Qty from Premeasurement Page no. 10						Previous Qty	0.00			
BOQ QTY	8.46					Total	8.48	Cum	92262.20	780538.00
						Deduct Previously paid qty	0.00			
						QTY limited to	8.46			
						To be Paid Now	8.46			
EMB - Measurement Continued Recorded On : / /										
8 Providing precast slab of 100 mm thick including cost of all materials, labour, curing, transportation, loading, unloading, etc., complete as per the direction of engineer in charge Data Rate										
						Previous Qty	0.00			
Nethajinagar										
Drain RHS										
1st main road	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	27.30	0.75	0.75	0.75	20.48				
Deduct Culvert										
Culvert 1	-1	4.80	0.75	0.75	0.75	-3.60				
Culvert 2 (1st Cross RHS)	-1	4.90	0.75	0.75	0.75	-3.68				
Culvert 4 (4th Cross RHS)	-1	5.90	0.75	0.75	0.75	-4.43				
Culvert 5 (5th Cross RHS)	-1	5.64	0.75	0.75	0.75	-4.23				
Drain LHS										
1st main road	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	27.30	0.75	0.75	0.75	20.48				
Culvert 3 (4th Cross LHS)										
	-1	5.60	0.75	0.75	0.75	-4.20				
Culvert 6 (5th Cross LHS)										
	-1	5.20	0.75	0.75	0.75	-3.90				
5th Cross Road										
	1	30.00	0.75	0.75	0.75	22.50				
	1	30.00	0.75	0.75	0.75	22.50				
	1	1.00	0.75	0.75	0.75	0.75				
For Missing / Damaged Slabs										
Nethaji nagar Cross Roads										
	1	5.90	0.90	0.90	0.90	5.31				
	1	6.90	0.90	0.90	0.90	6.21				
BOQ QTY	299.25					Present Executed Qty	299.19	Sqm	1885.50	564123.00
						Total	299.19			
						Deduct Previously Paid Qty	0.00			
						To be Paid Now	299.19			

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Description of work	No	Dimensions					Qty	Unit	Rate	Amount
		L	B 1	B 2	B Avg	D				

Assistant Engineer
 Ward No. 07

Assistant Executive Engineer
 Byatarayanpura Sub Division

EMB - Measurement Continued Recorded On : / /

9	Providing and Fixing pre cast covering slab 230mm thick made out of CC, jelly 20mm Down size with steel reinforcement including form work curing including cost of all materials labour hire charges of machinery loading, unloading, lead and lit, transportation etc, complete as per Engineer incharge (Data Rate)									
	New Culverts						Previous Qty	0.00		
	Raft									
	Culvert 1	1	5.10	1.20	1.20	1.20	6.12			
	Culvert 2 (1st Cross RHS)	1	4.90	1.20	1.20	1.20	5.88			
	Culvert 3 (4th Cross LHS)	1	5.60	1.20	1.20	1.20	6.72			
	Culvert 4 (4th Cross RHS)	1	5.90	1.20	1.20	1.20	7.08			
	Culvert 5 (5th Cross RHS)	1	5.64	1.20	1.20	1.20	6.77			
	Culvert 6 (5th Cross LHS)	1	5.20	1.20	1.20	1.20	6.24			
	For Missing / Damaged Slabs									
	Nethaji nagar	1	2.80	1.20	1.20	1.20	3.36			
		1	3.20	1.20	1.20	1.20	3.84			
		1	1.20	1.20	1.20	1.20	1.44			
	BOQ QTY	47.64					Present Executed Qty	47.45	Sqm	4583.67
							Total	47.45		
							Deduct Previously Paid Qty	0.00		
							To be Paid Now	47.45		

Assistant Engineer
 Ward No. 07

Assistant Executive Engineer
 Byatarayanpura Sub Division
 BBMP, Bangalore

217495.00
 217486.00

EMB - Measurement Continued Recorded On : / /										
10	Loading and unloading of Stone Boulder/ Stone aggregates /Sand /Kankar / Moorum (Tippers 5.5 m3)PWD SR 2021-22 Vol -III Page No.3 Item No.1.1 A)									
							Previous Qty	0.00		
	Nethajinagar									
	QTY Vide From Itm no.01+02+03		509.49				509.5			
	BOQ QTY	510.00					Present Executed Qty	509.49	Sqm	118.12
							Total	509.49		60181.00
							Deduct Previously Paid Qty	0.00		
							To be Paid Now	509.49		

Assistant Engineer
 Ward No. 07

Assistant Executive Engineer
 Byatarayanpura Sub Division
 BBMP, Bangalore

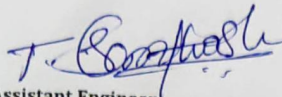
EMB - Measurement Continued Recorded On : / /										
11	Cost Of Haulage Excluding Loading And Unloading Taking output 10t load and lead 10km =100 t.km (PWD SR 2021-22 Vol -III Page No.3, Item No.1.4 A)									
							Previous Qty	0.00		
	Nethajinagar									
	QTY Vide From Itm no.01+02+03	1	509.77	1.28			652.14			
	BOQ QTY	653.00					Present Executed Qty	652.14	t.km	96.10
							Total	652.14		62706.00

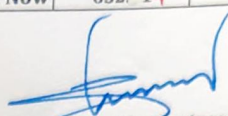
Assistant Engineer
 Ward No. 07

Assistant Executive Engineer
 Byatarayanpura Sub Division
 BBMP, Bangalore

62671.00

Description of work	No	Dimensions					Qty	Unit	Rate	Amount
		L	B 1	B 2	B Avg	D				
		Deduct Previously Paid Qty					0.00			
		To be Paid Now					652.14			


Assistant Engineer
Ward No. 07

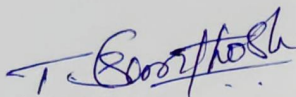

Assistant Executive Engineer
Byatarayanpura Sub Division

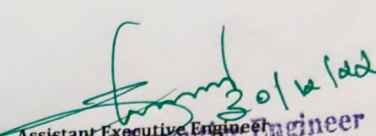
							3075857.00	Sub-Total - 1	30,75,898.00
							553654.26	GST 18%	553662.00
							3629511.26	Total Amount	3629560.00

CERTIFICATE:-

1. The work has been completed satisfactorily.
2. The work spot comes under BBMP Limits.
3. No Debris in Work Spot.
4. All Measurements are recorded in E-MB.

Round off: 3629000/-


Assistant Engineer
Ward No. 07


Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore



**BRUHAT BENGALURU MAHANAGARA
PALIKE**

EMB

(Pre- Measurement Sheet)

And

(Measurement Sheet)

1ST And Final Bill



BRUHAT BENGALURU MAHANAGARA PALIKE

1ST and Final Bill

Pre- Measurement Sheet

Name of Work :- Flood relief work in Netaji nagar and surrounding areas in ward no 07 Byatarayanapura

BRUHAT BENGALURU MAHANAGARA PALIKE

Name of Work: Flood relief work in Netaji nagar and surrounding areas in ward no 07 Byatarayanapura

PRE MEASUREMENT BILL DETAILS

First and Final Bill Recorded On- / /202

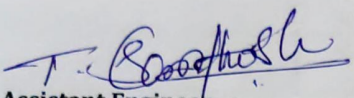
Sl No	Description of work	No	Dimensions					Qty	Unit
			L	B 1	B 2	B Avg	D		
EMB - Measurement Continued Recorded On : / /									
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead 1.By Manual Means b.Cement Concrete Grade M-15 & M-20								
	Nethajinagar								
	Drain RHS								
	Walls								
	1st main road	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	27.30 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	4.0 ✓	
	Bottom Raft								
	1st main road	1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	27.30 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
	Deduct Culvert Raft								
	Culvert 1	-1 ✓	4.80 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	-1.0 ✓	
	Culvert 2 (1st Cross RHS)	-1 ✓	4.90 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	-1.0 ✓	
	Culvert 4 (4th Cross RHS)	-1 ✓	5.90 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	-1.0 ✓	
	Culvert 5 (5th Cross RHS)	-1 ✓	5.64 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	-1.0 ✓	
	Drain LHS								
	Walls								
	1st main road	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	5.0 ✓	
		2 ✓	27.30 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.50 ✓	4.0 ✓	
	Bottom Raft								
	1st main road	1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
		1 ✓	27.30 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
	Deduct Culvert Raft								
	Culvert 3 (4th Cross LHS)	-1 ✓	5.60 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	-1.0 ✓	

10100

Description of work	No	Dimensions					Qty	Unit
		L	B 1	B 2	B Avg	D		
B - Measurement Continued Recorded On : / /								
3 Earth work excavation by manual means for drains, canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such similar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenances required to complete the work. In all kinds of soils Depth upto 1.5 m								
Nethajinagar								
Drain RHS								
1st main road	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	}
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	27.30 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	25.0 ✓	
Deduct Culvert								
Culvert 1	-1 ✓	4.80 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	-4.0 ✓	}
Culvert 2 (1st Cross RHS)	-1 ✓	4.90 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	-4.0 ✓	
Culvert 4 (4th Cross RHS)	-1 ✓	5.90 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	-5.0 ✓	
Culvert 5 (5th Cross RHS)	-1 ✓	5.64 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	-5.0 ✓	
Drain LHS								
1st main road	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	}
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	27.0 ✓	
	1 ✓	27.30 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	25.0 ✓	
Culvert 3 (4th Cross LHS)								
Culvert 3 (4th Cross LHS)	-1 ✓	5.60 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	-5.0 ✓	}
Culvert 6 (5th Cross LHS)	-1 ✓	5.20 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.90 ✓	-5.0 ✓	
5th Cross Road								
	1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.75 ✓	20.0 ✓	}
	1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.75 ✓	20.0 ✓	
	1 ✓	1.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.75 ✓	0.68 ✓	
New Culverts								
Culvert 1	1 ✓	5.10 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.90 ✓	7.0 ✓	}
Culvert 2 (1st Cross RHS)	1 ✓	4.90 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.90 ✓	7.0 ✓	
Culvert 3 (4th Cross LHS)	1 ✓	5.60 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.90 ✓	8.0 ✓	
Culvert 4 (4th Cross RHS)	1 ✓	5.90 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.90 ✓	8.0 ✓	
Culvert 5 (5th Cross RHS)	1 ✓	5.64 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.90 ✓	8.0 ✓	

361-70

Description of work	No	Dimensions					Qty	Unit
		L	B 1	B 2	B Avg	D		
Culvert 6 (5th Cross LHS)	1	5.20	1.50	1.50	1.50	0.90	7.0	
Desilt								
Netaji nagar Cross Roads	1	11.50	0.60	0.60	0.60	0.45	3.11	
	1	15.00	0.60	0.60	0.60	0.45	4.05	
Culvert Desilt in Cross Road								
Culvert 1	1	5.50	0.90	0.90	0.90	0.50	2.48	
Culvert 2	1	4.50	0.90	0.90	0.90	0.50	2.03	
Culvert 3	1	4.80	0.90	0.90	0.90	0.50	2.16	20.80
Total							382.49	Cum


Assistant Engineer
Ward No. 07


Assistant Executive Engineer
Byatacayalpur Sub Division
BBMP, Bangalore

Description of work	No	Dimensions					Qty	Unit
		L	B 1	B 2	B Avg	D		
B - Measurement Continued Recorded On : / /								
5 Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates								
Nethajinagar								
Drain RHS								
1st main road	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	27.30 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	4.0 ✓	
Deduct Culvert								
Culvert 1	-1 ✓	4.80 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	-1.0 ✓	
Culvert 2 (1st Cross RHS)	-1 ✓	4.90 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	-1.0 ✓	
Culvert 4 (4th Cross RHS)	-1 ✓	5.90 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	-1.0 ✓	
Culvert 5 (5th Cross RHS)	-1 ✓	5.64 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	-1.0 ✓	
Drain LHS								
1st main road	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	30.00 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	5.0 ✓	
	1 ✓	27.30 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	4.0 ✓	
Culvert 3 (4th Cross LHS)	-1 ✓	5.60 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	-1.0 ✓	
Culvert 6 (5th Cross LHS)	-1 ✓	5.20 ✓	1.00 ✓	1.00 ✓	1.00 ✓	0.15 ✓	-1.0 ✓	
5th Cross Road	1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.15 ✓	4.0 ✓	
	1 ✓	30.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.12 ✓	3.0 ✓	
	1 ✓	1.00 ✓	0.90 ✓	0.90 ✓	0.90 ✓	0.12 ✓	0.11 ✓	
New Culverts								
Culvert 1	1 ✓	5.10 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.15 ✓	1.0 ✓	
Culvert 2 (1st Cross RHS)	1 ✓	4.90 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.15 ✓	1.0 ✓	
Culvert 3 (4th Cross LHS)	1 ✓	5.60 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.15 ✓	1.0 ✓	
Culvert 4 (4th Cross RHS)	1 ✓	5.90 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.15 ✓	1.0 ✓	
Culvert 5 (5th Cross RHS)	1 ✓	5.64 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.15 ✓	1.0 ✓	
Culvert 6 (5th Cross LHS)	1 ✓	5.20 ✓	1.50 ✓	1.50 ✓	1.50 ✓	0.15 ✓	1.0 ✓	
						Total	65.11 ✓	Cum

T. Ramesh
Assistant Engineer
Ward No. 07

Kodachalli
Assistant Executive Engineer
Kodachalli Sub Division
BBMP, Bangalore

Description of work	No	Dimensions					Qty	Unit
		L	B 1	B 2	B Avg	D		
B - Measurement Continued Recorded On : / /								
Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates								
Nethajinagar								
Raft								
Drain RHS								
1st main road	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	27.30 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.07 ✓	
Deduct Culvert								
Culvert 1	-1 ✓	4.80 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	-0.54 ✓	
Culvert 2 (1st Cross RHS)	-1 ✓	4.90 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	-0.55 ✓	
Culvert 4 (4th Cross RHS)	-1 ✓	5.90 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	-0.66 ✓	
Culvert 5 (5th Cross RHS)	-1 ✓	5.64 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	-0.63 ✓	
Drain LHS								
1st main road	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	27.30 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.07 ✓	
Culvert 3 (4th Cross LHS)	-1 ✓	5.60 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	-0.63 ✓	
Culvert 6 (5th Cross LHS)	-1 ✓	5.20 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	-0.59 ✓	
5th Cross Road	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	30.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	3.38 ✓	
	1 ✓	1.00 ✓	0.75 ✓	0.75 ✓	0.75 ✓	0.15 ✓	0.11 ✓	
Wall								
Drain RHS								
1st main road	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.45 ✓	4.05 ✓	
	2 ✓	27.30 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.30 ✓	2.46 ✓	
Deduct Culvert								
Culvert 1	-2 ✓	4.80 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	-0.86 ✓	
Culvert 2 (1st Cross RHS)	-2 ✓	4.90 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	-0.88 ✓	
Culvert 4 (4th Cross RHS)	-2 ✓	5.90 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	-1.06 ✓	
Culvert 5 (5th Cross RHS)	-2 ✓	5.64 ✓	0.15 ✓	0.15 ✓	0.15 ✓	0.30 ✓	-0.51 ✓	

Description of work	No	Dimensions					Qty	Unit
		L	B 1	B 2	B Avg	D		
Drain LHS								
1st main road	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	5.40 ✓	
	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.45 ✓	4.05 ✓	
	2 ✓	27.30	0.15 ✓	0.15 ✓	0.15 ✓	0.30 ✓	2.46 ✓	
Culvert 3 (4th Cross LHS)	-2 ✓	5.60	0.15 ✓	0.15 ✓	0.15 ✓	0.60 ✓	-1.01 ✓	
Culvert 6 (5th Cross LHS)	-2 ✓	5.20	0.15 ✓	0.15 ✓	0.15 ✓	0.30 ✓	-0.47 ✓	
5th Cross Road	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.45 ✓	4.05 ✓	
	2 ✓	30.00	0.15 ✓	0.15 ✓	0.15 ✓	0.45 ✓	4.05 ✓	
	2 ✓	1.00	0.15 ✓	0.15 ✓	0.15 ✓	0.45 ✓	0.14 ✓	
New Culverts								
Raft								
Culvert 1	1 ✓	5.10	1.20 ✓	1.20 ✓	1.20 ✓	0.20 ✓	1.22 ✓	
Culvert 2 (1st Cross RHS)	1 ✓	4.90	1.20 ✓	1.20 ✓	1.20 ✓	0.20 ✓	1.18 ✓	
Culvert 3 (4th Cross LHS)	1 ✓	5.60	1.20 ✓	1.20 ✓	1.20 ✓	0.20 ✓	1.34 ✓	
Culvert 4 (4th Cross RHS)	1 ✓	5.90	1.20 ✓	1.20 ✓	1.20 ✓	0.20 ✓	1.42 ✓	
Culvert 5 (5th Cross RHS)	1 ✓	5.64	1.20 ✓	1.20 ✓	1.20 ✓	0.20 ✓	1.35 ✓	
Culvert 6 (5th Cross LHS)	1 ✓	5.20	1.20 ✓	1.20 ✓	1.20 ✓	0.20 ✓	1.25 ✓	
Wall								
Culvert 1	2 ✓	5.10	0.20 ✓	0.20 ✓	0.20 ✓	0.60 ✓	1.22 ✓	
Culvert 2 (1st Cross RHS)	2 ✓	4.90	0.20 ✓	0.20 ✓	0.20 ✓	0.60 ✓	1.18 ✓	
Culvert 3 (4th Cross LHS)	2 ✓	5.60	0.20 ✓	0.20 ✓	0.20 ✓	0.60 ✓	1.34 ✓	
Culvert 4 (4th Cross RHS)	2 ✓	5.90	0.20 ✓	0.20 ✓	0.20 ✓	0.60 ✓	1.42 ✓	
Culvert 5 (5th Cross RHS)	2 ✓	5.64	0.20 ✓	0.20 ✓	0.20 ✓	0.45 ✓	1.02 ✓	
Culvert 6 (5th Cross LHS)	2 ✓	5.20	0.20 ✓	0.20 ✓	0.20 ✓	0.45 ✓	0.94 ✓	
For Ramp								
5th cross Road LHS	1 ✓	5.20	1.00 ✓	1.05 ✓	1.03 ✓	0.35 ✓	1.87 ✓	
5th cross Road RHS	2 ✓	5.20	0.90 ✓	0.90 ✓	0.90 ✓	0.35 ✓	3.28 ✓	
4th Cross Road LHS	2 ✓	4.90	1.20 ✓	1.20 ✓	1.20 ✓	0.35 ✓	4.12 ✓	
4th Cross Road RHS	2 ✓	5.90	1.20 ✓	1.20 ✓	1.20 ✓	0.35 ✓	4.96 ✓	
Total							131.89	Cum

T. *[Signature]*
Assistant Engineer
Ward No. 07

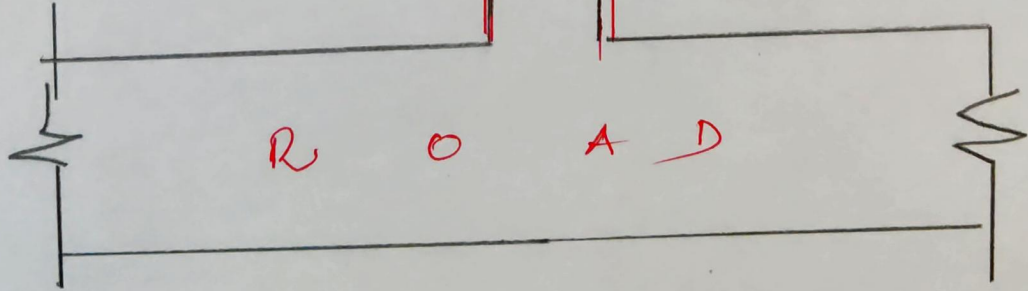
[Signature] 26/11/20
Assistant Executive Engineer
Byatarayanpur Sub Division
BBMP, Bangalore

Description of work	No	Dimensions					Qty	Unit
		L	B 1	B 2	B Avg	D		
MB - Measurement Continued Recorded On : / /								
7	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22)							
SL No	Description	Dia In MM	No	Length in M	8 MM	10 MM	12 MM	16 MM
	SPACING - 0.15 M							
	FOR DRAINS							
1	1st main Road RHS					2705.30		
	10mm Main	10Ø	2081.00	1.30				
	8mm Dis	8Ø	19.00	156.06	2965.14			
2	1st main Road LHS					2887.30		
	10mm Main	10Ø	2221.00	1.30				
	8mm Dis	8Ø	19.00	166.50	3163.50			
3	5th cross road					1385.50		
	10mm Main	10Ø	815.00	1.70				
	8mm Dis	8Ø	23.00	61.00	1403.00			
	CULVERTS							
	SPACING - 0.15 M							
	5th Cross Road LHS						127.80	
	12mm Main	12Ø	71.00	1.80				
	10mm Dis	10Ø	25.00	5.20		130.00		
	5th Cross Road RHS						138.60	
	12mm Main	12Ø	77.00	1.80				
	10mm Dis	10Ø	25.00	5.64		141.00		
	4th Cross Road RHS						142.20	
	12mm Main	12Ø	79.00	1.80				
	10mm Dis	10Ø	25.00	5.90		147.50		
	4th Cross Road LHS						135.00	
	12mm Main	12Ø	75.00	1.80				
	10mm Dis	10Ø	25.00	5.60		140.00		
	1St Cross Road RHS						120.60	
	12mm Main	12Ø	67.00	1.80				
	10mm Dis	10Ø	25.00	4.90		122.50		
	Cross Road						124.20	
	12mm Main	12Ø	69.00	1.80				
	10mm Dis	10Ø	25.00	5.10		127.50		
					7531.64	7786.60	788.40	
CALCULATIONS								
Calculations	8Ø	7531.64	0.395	2975.00				
	10Ø	7786.60	0.617	4804.33				
	12Ø	788.40	0.888	700.10				
	16Ø	0.00	1.580	0.00				
			Total	8479.43	Kg/m			
Total							8.48	Tn
Qty limited to							8.46	Tn

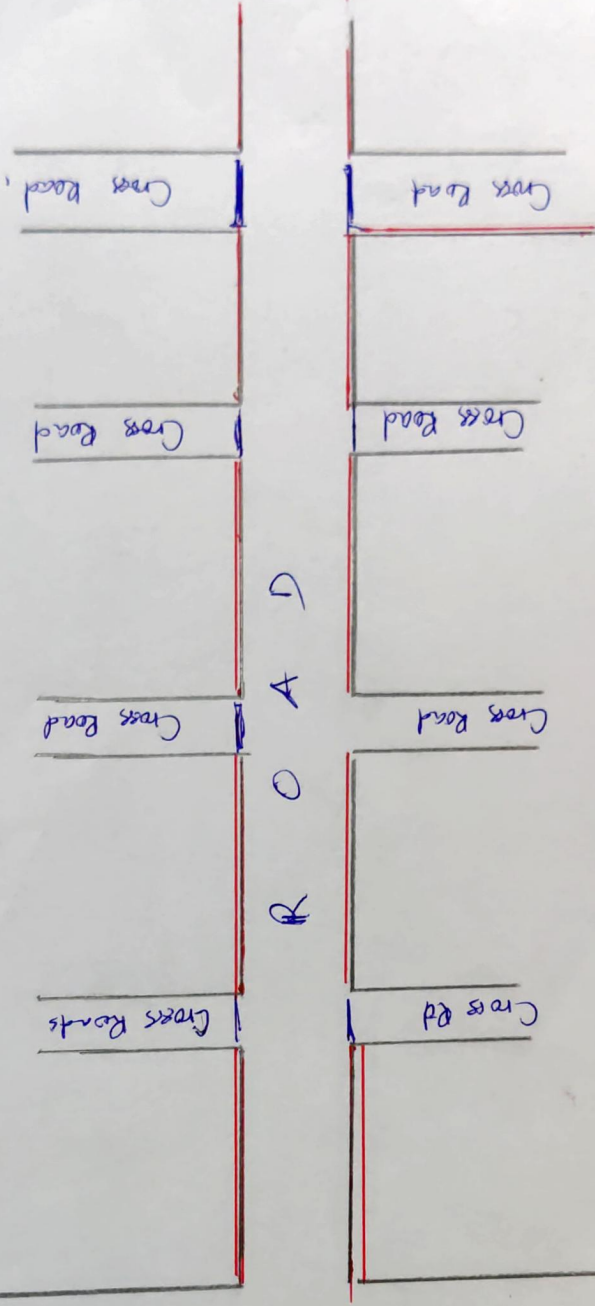
T. Bhooshan
Assistant Engineer
Ward No. 07

Assistant Executive Engineer
Byatarayanpura Sub Division
BBMP, Bangalore

Sketch showing flood Relief work in Netaji Nagendra
and Surrounding Areas in Ward No. 7. Dytalaya



Handwritten signature
T. Raghav



RCC Drain.
Culverts.

Handwritten signature

Assistant Executive Engineer
Kodigehalli Sub Division
RRMP, Bangalore